

### Abstract

A method for identifying a molecule that binds an irradiated tumor in a subject and molecules identified thereby. The method includes the steps of: (a) exposing a tumor to ionizing radiation; (b) administering to a subject a library of diverse molecules; and (c) isolating from the tumor one or more molecules of the library of diverse molecules, whereby a molecule that binds an irradiated tumor is identified. Also provided are therapeutic and diagnostic methods using targeting ligands that bind an irradiated tumor.

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